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Guidelines for the Monitoring, Evaluation, Reporting, Verification, and Certification of Forestry Projects for Climate Change Mitigation

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Environmental Energy Technologies Division

March 1999

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GUIDELINES FOR THE MONITORING, EVALUATION, REPORTING, VERIFICATION, AND CERTIFICATION OF FORESTRY PROJECTS FOR CLIMATE CHANGE MITIGATION

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PREFACE

To combat the growing threat of global climate change from increasing concentrations of greenhouse gases in the atmosphere, the Kyoto Protocol includes project-based mitigation efforts to achieve large-scale and cost-effective emissions reductions. The Protocol requires real and measurable reductions in emissions that are additional to any that would occur in the absence of a certified project activity. Monitoring, evaluation, reporting, verification and certification of these projects are activities that the U.S. Environmental Protection Agency (EPA) sees as important.

EPA has initiated a three-phase process in developing usable guidelines on monitoring, evaluation, reporting, verification and certification (MERVC). In the first phase, an overview of MERVC issues was prepared (E. Vine and J. Sathaye. 1997. *The Monitoring, Evaluation, Reporting, and Verification of Climate Change Mitigation Projects: Discussion of Issues and Methodologies and Review of Existing Protocols and Guidelines*. LBNL-40316. Berkeley, CA: Lawrence Berkeley National Laboratory). The guidelines presented in this report constitute the second phase of work. The third phase will be a procedural handbook that describes the information and requirements for specific measurement and evaluation methods that can be employed for measuring carbon sequestration.

The intent of these reports is to provide initial methodologies that will support the measurement of greenhouse gas removals from project-level activities. These methodologies will also assist project developers in preparing and implementing monitoring, evaluation, and verification plans that can lead to better estimates of carbon stock as well as improve the projects themselves, making them more attractive to investors, the private sector, and local communities.

These guidelines have been reviewed by project developers (working on projects in Russia, Eastern Europe, Africa and Latin America) as well as experts in the monitoring and evaluation of forestry projects. The practitioners reviewed the report for accuracy and assessed whether data were available for completing the forms presented at the end of this report. Based on their feedback, we believe these guidelines and related forms can be used by project developers, evaluators, and verifiers.

These guidelines can also be used by anyone involved with the design and development of joint implementation and Clean Development Mechanism projects, such as: forest management companies, development banks, finance firms, consultants, government agency employees and contractors, city and municipal managers, researchers, and nonprofit organizations. National and international entities can also use these guidelines and forms as a model for developing official MERVC-type guidelines.

Maurice LeFranc
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ABSTRACT

Because of concerns with the growing threat of global climate change from increasing concentrations of greenhouse gases in the atmosphere, the United States and other countries are implementing, by themselves or in cooperation with one or more other nations, climate change mitigation projects. These projects will reduce greenhouse gas (GHG) emissions or sequester carbon, and may also result in non-GHG benefits and costs (i.e., other environmental and socioeconomic benefits and costs).

Monitoring, evaluating, reporting, verifying, and certifying (MERVC) guidelines are needed for these projects in order to accurately determine their impact on GHG and other attributes. Implementation of standardized guidelines is also intended to: (1) increase the reliability of data for estimating GHG benefits; (2) provide real-time data so that programs and plans can be revised mid-course; (3) introduce consistency and transparency across project types and reporters; (4) enhance the credibility of the projects with stakeholders; (5) reduce costs by providing an international, industry consensus approach and methodologies; and (6) reduce financing costs, allowing project bundling and pooled project financing.

These guidelines cover the following items: (1) a description of three methods (modeling, remote sensing, and field/site measurement) for evaluating changes in the carbon stock; (2) an explanation of key issues influencing the establishment of a credible baseline (free riders) and the calculation of changes to the carbon stock (project leakage, positive project spillover, and market transformation); (3) a process for verifying and certifying project impacts, based on an interpretation of the Kyoto Protocol; (4) a discussion of the importance and value of including environmental and socioeconomic impacts in the evaluation of forestry projects; (5) reporting forms for estimation of changes in carbon stock (Appendix A), for monitoring and evaluation of these changes (Appendix B), and for verification (Appendix C); and (6) Quality Assurance Guidelines that require evaluators and verifiers to indicate specifically how key methodological issues are addressed.

The next phase of this work will be to develop a procedural handbook providing information on how one can complete the monitoring, evaluation and verification forms contained in this report. Next, we plan to test the usefulness of these guidelines in the real world.

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